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Synopsis of the
Project Tomorrow Patent Docket

On May 14, 1993, I was advised that David Radulescu had contacted the Examiner regarding the status of the case. She is proceeding to issue a Notice of Allowance and will not, consistent with our preferences, enter the amendment filed May 7, 1993 in PM 1479.

The most notable claims allowed in PM 1479 include:

wrapper claims: claim 47 sets forth a wrapper with regions of fibrous cellulose applied and bonded at a basis weight of .5 grams per meter squared to 10 grams per meter squared. Claim 48 is similar to claim 47 but recites "applied as a slurry"; and claim 3 is allowed which sets forth the same recitations as claim 47, together with a recitation that the fibrous cellulose is from the group consisting of microcrystalline cellulose, bacterial cellulose and microfibrillated cellulose;

smoking article claims: claim 38 has been allowed and it sets forth a smoking article comprising a tobacco filler and a wrapper comprising regions of fibrous cellulose selected from the group of microcrystalline cellulose, bacterial cellulose and microfibrillated cellulose applied between about .5 grams per meter squared and 10 grams per meter squared; claim 29 is being amended by the Examiner to depend from claim 28 and it recites the additional feature of a binder;

method claims: claim 15 recites a method broadly a method of making a smoking article wrapper with bacterial cellulose applied at .5 weight percent to about 1.5 weight percent solids in water; and claim 16 sets forth a broadly-framed method for making a smoking article wrapper wherein the slurry comprises microcrystalline cellulose with binder and the slurry is about 5 weight percent solids to about 10 weight percent solids in water.

There is some patent coverage which could be further pursued if we file a continuation of PM 1479. These areas include: pursuing a claim like the wrapper claim 47 as described above but framed as a smoking article claim as opposed to a wrapper claim; a more generically framed method claim which would recite that the slurry comprises fibrous cellulose at .5 to 10 weight

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percent solids and comprising material from the group consisting microcrystalline, microfibrillated and bacterial cellulose (mysteriously the Examiner did not favorably consider method claim 10 which is similar to this styled method claim); and a set of additional method claims setting forth narrower and narrower ranges of weight percentage solids so that should someone ever find prior art pertinent to the broader ranges, we have backup positions.

Page 7, lines 11-23, of the specification in PM 1479 explains that the cellulose can be applied by "various conventional coating or printing techniques". They also can be applied "on-line or off-line" of the base paper making apparatus beyond the wet end of the paper machine. At page 9, lines 18-26, it is explained that fibrous cellulose may be applied "during or after the initial manufacture of the base paper wrapper".

We need not rush into filing a continuation, but Fish & Neave recommends proceeding, and I concur with their recommendation.

We have instructed Fish & Neave to proceed with a PM 1479 CIP directed to banded paper utilizing polysaccharides slurries. I suspect that we may need to resolve which types of polysaccharides are to be included within the application.

PM 1429 is addressed to the daubing dandy machine for applying slurry at a location along the fourdrinier wire and includes claims going to a paper wrapper, a smoking article and methods of making the wrapper. The Examiner favorable considered a host of claims initially, and then reopened prosecution citing the Blake patent in a rejection of the broadest paper and smoking articles claims. Claim 37 sets forth a non-laminated paper comprising a base web of cellulosic fiber having cross-directional regions of a bases weight greater than the bases weight of the base web, wherein the laminated paper has substantially uniform thickness. On April 27, 1993, the Examiner mailed a non-final Office Action rejecting all claims including the aforementioned claim 37, citing Hampl, U.S. Patent No. 4,239,591 to Blake, and U.S. Patent No. 3,915,176 to Heitmann et al. We have yet to file a divisional application on the apparatus claims on the daubing dandy device itself.

PM 1626 is a disclosure relating to ink-jet printing of banded regions. Fish & Neave has advised that it needs further information before proceeding. Presently, the application is on hold.

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PM 1498 has been allowed and it describes in claims the processes for applying the segments of band paper to a wrapper including and adhering segments of band paper to a surface of a continuous web (the Jim Dandy).

PM 1533 *Wrapper with Bands of Reconstituted Tobacco Sheet for Smoking Articles* was filed June 8, 1992, and filed abroad in Japan and the EPO. An Office Action dated February 3, 1993, rejected all pending claims.

PM 1532 *Production of a Banded Paper* discloses a cigarette wrapper constructed from a base wrapper and a band adhered to the wrapper, wherein one side of the band is treated with a film former and the band is adhered to the base wrapper on the more porous, untreated side of the band. The application is in draft and further examples were sent to Fish & Neave on May 7, 1993.

PM 1521 discloses a smoking article wrapper having areas of differing porosities made by geometrically controlled cutting of the base web. Embodiments include: cutting a sinusoidal pattern along one edge of a web and folding the web over upon itself; and cutting windows along one side of a web and folding it over. A draft of the application has been returned to Fish & Neave.

PM 1368 discloses a double wrap type cigarette wrapper having maximum calendaring in banded regions for mass burn rate control. The application has been on hold since October 17, 1989, awaiting further data. The application is apparently related to PM 1366 *Calendared and Laminated Paper Web for a Cigarette Wrapper and Method of Adhering two Paper Webs Together to Make a Double Wrapped Cigarette.*

PM 1349 discloses a wrapper for smoking articles and method for preparing same (sol-gel). It issued March 12, 1991 as U.S. 4,998,542 and discloses a wrapper comprising a cigarette paper and an amorphus inorganic network formed from a gel. Preferably, the sol-gel process is formed from at least one metal oxide precursor from either aluminum, titanium or zirconium, sodium or potassium or calcium.

PM 1539 sets forth an apparatus an method for laminating patches to a base web in one embodiment. A plurality of transfer links are arranged along an endless conveyor, which transfer links communicate with a vacuum plenum. Another embodiment effects transfer with a drum. PM 1539 has issued as U.S. Patent No. 5,200,020.

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PM 1540 to *An Apparatus and Method for Laminating Patches of a First Web Material onto a Second Web Material* remains pending.

PM 1541 *Apparatus and Method for Laminating Strips of a First Web Material* discloses a shuttle cock/loom processes for constructing banded papers. The application remains pending. No foreign filing was undertaken on this invention.

Sherry Baldwin has expressed interest in pursuing "capacitor paper" as a component of a banded cigarette. Capacitor papers formed by: pulping wood; refining the wood pulp; washing the refined wood pulp with an acid to remove ions and to partially hydrolyse the remaining fiber; and laying the slurry on a fourdrinier wire.

Harry Lanzillotti advised that the idea of resorting to capacitor paper slurries possibly arose at a meeting attended by both PM and Kimberly-Clark personnel.

Sherry Baldwin expressed interest in a "solvent-based slurry" such as Klucell or Avicel in alcohol.

Sherry Baldwin also advised that we are exploring slurries for banded paper applications which utilizes metal ions as cross-linking agents.

Sherry Baldwin has expressed interest in pursing the use of inorganic salts in the banded regions.

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